PATENT COOPERATION TREATY

PCT

TRANSLATION INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

| Applicant's or agent's file reference 8807 WO RO-HA | | FOR FURTHER ACTION | | See Form PCT/IPEA/416 | | | |
|--|--|-------------------------------------|--------------------|---|--|--|--|
| International application No. | | International filing date (day/r | nonth/year) | Priority date (day/month/year) | | | |
| PCT/EP2004/010292 | | 15.09.2004 | | 13.10.2003 | | | |
| International Patent Classification (IPC) or national classification and IPC | | | | | | | |
| F16H63/20, F16H61/28 | | | | | | | |
| Applicant ZF FRIEDRICHSHAFEN AG | | | | | | | |
| | This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36. | | | | | | |
| 2. Thi | REPORT consists of a total of | 4 | sheets, including | this cover sheet. | | | |
| 3. This | report is also accompanied by | ANNEXES, comprising: | | | | | |
| a. | (sent to the applicant an | d to the International Bureau) a t | otal of | sheets, as follows: | | | |
| | a. (sent to the applicant and to the International Bureau) a total of sheets, as follows: sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions). | | | | | | |
| | sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental | | | | | | |
| , | Box. b. (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) | | | | | | |
| b. | (sent to the International | Bureau only) a total of (indicate | type and number | of electronic carrier(s)) | | | |
| | related thereto, in comput | ar readable form only as indicate | | , containing a sequence listing and/or tables | | | |
| | related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions). | | | | | | |
| 4. Thi | report contains indications rela | ing to the following items: | | | | | |
| | Box No. I Basis of th | e report | | | | | |
| | Box No. II Priority | | | | | | |
| | Box No. III Non-estab | ishment of opinion with regard t | o novelty, inventi | ve step and industrial applicability | | | |
| | Box No. IV Lack of un | ity of invention | | | | | |
| | Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement | | | | | | |
| | Box No. VI Certain do | cuments cited | | | | | |
| | Box No. VII Certain de | fects in the international applicat | ion | | | | |
| | Box No. VIII Certain ob | servations on the international ap | plication | | | | |
| Date of submission of the demand | | Date of | completion of thi | s report | | | |
| | | | | | | | |
| Name and mailing address of the IPEA/EP | | Authori | zed officer | | | | |
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| Facsimile No. | | Telepho | ne No. | | | | |

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/010292

| Box | k No. I | Basis of the report | | | | | |
|-----|-------------|---|--|------------------------------------|--|--|--|
| 1. | | h regard to the language , this report is based on the internaticated under this item. | onal application in the language in which | ch it was filed, unless otherwise | | | |
| | | This report is based on translations from the original language which is the language of a translation furnished for the pur | | , | | | |
| | | international search (Rule 12.3 and 23.1(b)) | international search (Rule 12.3 and 23.1(b)) | | | | |
| | | publication of the international application (Rule 12. | publication of the international application (Rule 12.4) | | | | |
| | | international preliminary examination (Rule 55.2 and | | | | | |
| 2. | rece | h regard to the elements of the international application, thi iving Office in response to an invitation under Article 14 a report): | | | | | |
| | | the international application as originally filed/furnished | | | | | |
| | \boxtimes | the description: | | | | | |
| | | pages <u>1-11</u> | | as originally filed/furnished | | | |
| | | pages* | received by this Authority on | | | | |
| | | pages* | received by this Authority on | _ | | | |
| | \boxtimes | the claims: | | | | | |
| | | nos1-13 | | as originally filed/furnished | | | |
| | | nos.* | as amended (together with | th any statement) under Article 19 | | | |
| | | nos.* | received by this Authority on | | | | |
| | | nos.* | received by this Authority on | | | | |
| | \boxtimes | the drawings: | | | | | |
| | | sheets _ 1/2-2/2 | | as originally filed/furnished | | | |
| | | sheets* | received by this Authority on | | | | |
| | | sheets* | received by this Authority on | | | | |
| | | a sequence listing and/or any related table(s) – see Suppler | nental Box Relating to Sequence Listin | g. | | | |
| 3. | | The amendments have resulted in the cancellation of: | | | | | |
| | | the description, pages | | | | | |
| | | the claims, nos. | | _ | | | |
| | | the drawings shorts/figs | | | | | |
| | | the sequence listing (specify): | | | | | |
| | | any table(s) related to sequence listing (specify): | | | | | |
| 4. | | This report has been established as if (some of) the amer they have been considered to go beyond the disclosure as | | | | | |
| | | the description, pages | | | | | |
| | | the claims, nos. | | | | | |
| | | the drawings, sheets/figs | | | | | |
| | | the sequence listing (specify): | | | | | |
| | | any table(s) related to sequence listing (specify): | | | | | |
| * | If ite | em 4 applies, some or all of those sheets may be marked "su | perseded." | | | | |

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No. PCT/EP2004/010292

| Box No. V Reasoned statement under Art citations and explanations sup | | | ticle 35(2) with regard to novelty, inventive step or industrial applicability; oporting such statement | |
|---|------------------------------------|------------------|---|--------|
| 1. | Statement | | | |
| | Novelty (N) | Claims | 1-13 | YES |
| | | Claims | | NO |
| | Inventive step (IS) | Claims Claims | 1-13 | YES NO |
| | Industrial applicability (IA) | Claims Claims | 1-13 | YES NO |
| 2 | Citations and explanations (Rule) | 70.7) | | |

- - This report makes reference to the following documents:
 - D1: DE 198 43 584 A (ZAHNRADFABRIK FRIEDRICHSHAFEN) (2000-03-30)
 - Document D1 is considered the closest prior art and discloses (the references between parentheses refer to that document): a switching device for a gear, with a selector shaft, on which selector forks are arranged such that they can be axially displaced, with a selector device (14) for selecting a selector fork, and with locking devices (31) which prevent the non-selected selector forks from moving, the locking devices (31) being arranged on an additional shaft which is parallel to the selector shaft.

The subject matter of independent claim 1 differs therefrom in that:

an actuator is provided and axially displaces the selector shaft in order to carry out the switching procedure,

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| Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement | | |
|---|--|--|
| elements of the selector device are provided on | | |
| the additional shaft, and | | |
| an additional actuator is provided and rotates the | | |
| additional shaft. | | |
| | | |
| The subject matter of claim 1 is thus novel (PCT | | |
| ticle 33(2)). | | |
| | | |
| The current invention can therefore be considered | | |
| to address the problem of | | |
| developing an alternative to existing switching | | |
| ces which allows simple actuation using | | |
| actuators. | | |
| | | |
| The solution to this problem as proposed in | | |
| claim 1 of the present application involves an | | |
| inventive step (PCT Article 33(3)) for the | | |
| following reasons: | | |
| the combination of features is not obvious to a | | |
| person skilled in the art. | | |
| | | |
| Claims 2-13 are dependent on claim 1 and therefore | | |
| likewise meet the PCT requirements for novelty and | | |
| inventive step. | | |
| | | |